

Appendix D

Comparison of Hatfield TSLRIC Results

GTE of California, Inc.

| Loop elements | GTE Base Case | Costs with All Input Prices Increased 10% | Percent Change | Percent of Total Cost of Network Elements (Base) |
|--|------------------|---|-------------------|--|
| (1) | (2) | (3) | (4) | (5) |
| NID | \$0.72 | \$0.79 | 9.39% | 4.34% |
| Loop Distribution (all) | \$5.94 | \$6.51 | 9.45% | 35.83% |
| Loop Concentration (all) | \$2.77 | \$3.01 | 8.65% | 16.71% |
| Loop Feeder (all) | \$3.21 | \$3.51 | 9.50% | 19.33% |
| Total Loop (all) | \$12.64 | \$13.82 | 9.29% | 76.20% |
| Total (w/ Public) | \$887,151,410.29 | \$956,904,158.92 | 7.86% | |
| Total cost of switched network elements | \$16.59 | \$17.87 | 7.73% | 100.00% |

Appendix E

Actual Versus Hatfield Comparison

CONTEL/GTE of California, Inc.

(\$ million)

| Cost Category | Actual | Model | Model/Actual |
|----------------------------|---------|---------|----------------|
| (1) | (2) | (3) | (4) (3)/(2) |
| Network Investment | 7,699.8 | 3,254.5 | 42.3% |
| General Support Investment | 1,158.1 | 177.0 | 15.3% |
| Total Investment | 8,921.1 | 3,431.5 | 38.5% |
| Network Expenses | 272.1 | 104.6 | 38.4% |
| Support Expenses | 404.2 | 144.2 | 35.7% |
| Corporate Expenses | 396.5 | 85.1 | 21.5% |
| Total Expenses | 1,072.8 | 333.8 | 31.1% |
| Revenue | 2,411.3 | 887.2 | 36.8% |

Actual Versus Hatfield Comparison

GTE Telephone Operations, Texas

(\$ million)

| Cost Category | Actual | Model | Model/Actual |
|----------------------------|---------|---------|----------------|
| (1) | (2) | (3) | (4) (3)/(2) |
| Network Investment | 3,399.2 | 2,220.4 | 65.3% |
| General Support Investment | 561.7 | 131.5 | 23.4% |
| Total Investment | 3,976.3 | 2,351.9 | 59.1% |
| Network Expenses | 119.3 | 58.6 | 49.1% |
| Support Expenses | 171.1 | 72.2 | 42.2% |
| Corporate Expenses | 159.1 | 53.4 | 33.6% |
| Total Expenses | 449.6 | 184.2 | 41.0% |
| Revenue | 1,024.6 | 561.3 | 54.8% |

Appendix F

HM 3.0 and HM 2.2.2 Distribution Distances and Street Lengths within Selected California CBGs Contained Entirely within GTE Wire Centers (miles)

| CBG | HM 3.0 Distance | HM 3.0 Cable Sums | HM 2.2.2 Distance | Length of Streets | Claritas Areas |
|-----------------|--------------------|----------------------|----------------------|----------------------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 60650444.027 | 17.05 | 32.04 | 3.97 | 36.24 | 20.20 |
| 60650438.064 | 19.94 | 45.45 | 3.71 | 54.86 | 17.65 |
| 60650438.061 | 13.27 | 27.23 | 3.16 | 15.20 | 12.79 |
| 60650438.063 | 25.21 | 84.53 | 2.97 | 74.41 | 11.27 |
| 60710109.007 | 20.30 | 31.53 | 0.96 | 34.38 | 2.35 |
| 60710110.002 | 11.54 | 16.52 | 0.95 | 24.95 | 2.29 |
| 60710110.001 | 16.70 | 26.74 | 0.89 | 34.73 | 2.04 |
| 60830017.023 | 28.47 | 92.86 | 0.86 | 12.87 | 1.88 |
| 60710109.001 | 16.58 | 26.95 | 0.83 | 31.77 | 1.76 |
| 60710109.006 | 17.03 | 26.76 | 0.78 | 25.68 | 1.55 |
| 60650443.001 | 13.14 | 26.61 | 0.96 | 11.69 | 1.19 |
| 60830017.012 | 13.62 | 42.09 | 0.68 | 10.99 | 1.17 |
| 60650442.001 | 17.80 | 31.76 | 0.87 | 12.60 | 0.97 |
| 60650443.002 | 12.54 | 29.37 | 0.82 | 7.55 | 0.87 |
| 60830016.013 | 15.53 | 28.03 | 0.55 | 9.03 | 0.77 |
| 60650442.002 | 11.80 | 22.32 | 0.70 | 11.90 | 0.63 |
| 60650441.003 | 12.59 | 22.71 | 0.63 | 7.83 | 0.51 |
| 60830017.021 | 5.21 | 16.69 | 0.43 | 6.07 | 0.48 |
| 60650441.005 | 10.87 | 20.35 | 0.61 | 9.95 | 0.48 |
| 60830016.011 | 6.99 | 10.81 | 0.42 | 4.53 | 0.46 |
| 60830016.012 | 11.13 | 25.26 | 0.42 | 6.66 | 0.45 |
| 60830016.026 | 7.60 | 30.86 | 0.35 | 2.80 | 0.32 |
| 60650438.069 | 2.83 | 3.53 | 0.38 | 3.21 | 0.18 |
| 60830016.022 | 4.19 | 10.13 | 0.25 | 3.03 | 0.16 |
| 60830016.023 | 4.19 | 6.45 | 0.25 | 2.73 | 0.16 |
| 60650441.004 | 3.38 | 8.63 | 0.35 | 3.77 | 0.16 |
| 60830016.027 | 4.02 | 9.70 | 0.24 | 3.70 | 0.15 |
| 60830016.025 | 4.59 | 11.47 | 0.22 | 3.53 | 0.12 |
| 60830016.021 | 3.05 | 7.56 | 0.21 | 2.91 | 0.11 |
| Total, 29 CBGs | 351.17 | 774.92 | 28.43 | 469.58 | 83.11 |
| Total, All CBGs | 52,190.71 | 129,294.60 | 2,955.34 | | |

| | |
|--|------|
| Ratio of Street Lengths to HM 2.2.2 Distance, Selected CBGs | 16.5 |
| Ratio of Street Lengths to HM 3.0 Distance, Selected CBGs | 1.3 |
| Ratio of HM 3.0 Distance to HM 2.2.2 Distance, Selected CBGs | 12.4 |
| Ratio of HM 3.0 Distance to HM 2.2.2 Distance, All CBGs | 17.7 |
| Ratio of HM 3.0 Cable Sums to HM 2.2.2 Distance, Selected CBGs | 27.3 |
| | 43.7 |

Appendix G

Comparison of HM 3.0 and HM 2.2.2 Distribution Distance, Area, Density, and Distribution Cost and Investment for GTE California, GTE Texas and GTE Washington

| State | Distance (miles) | | Area (sq. miles) | | Households (000) | | Loop Distribution Annual Cost (\$mm) | | Total Distribution Investment (\$mm) | |
|--------------------------------------|------------------|----------|------------------|-----------|------------------|----------|---|----------|---|------------|
| | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 |
| Total | | | | | | | | | | |
| CA | 52,190.71 | 2,955.34 | 55,461.67 | 27,036.29 | 3,657.69 | 2,358.98 | \$307.51 | \$309.95 | \$1,166.10 | \$1,158.01 |
| WA | 15,054.60 | 1,377.90 | 18,562.39 | 16,161.36 | 519.68 | 503.74 | \$68.94 | \$81.50 | \$274.29 | \$316.18 |
| TX | 45,648.28 | 5,934.53 | 89,336.71 | 97,943.76 | 1,153.99 | 1,191.52 | \$131.44 | \$267.54 | \$699.49 | \$1,025.25 |
| Average | | | | | | | | | | |
| CA | 11.30 | 0.71 | 12.01 | 6.45 | 4,307.05 | 1,931.01 | 0.0666 | 0.0740 | 0.2525 | 0.2763 |
| WA | 14.67 | 1.33 | 18.09 | 15.55 | 1,578.40 | 915.17 | 0.0672 | 0.0784 | 0.2673 | 0.3043 |
| TX | 15.62 | 2.01 | 30.56 | 33.10 | 1,588.15 | 757.58 | 0.0450 | 0.0904 | 0.2393 | 0.3465 |
| Ratio of HM 3.0 to HM 2.2.2, Total | | | | | | | | | | |
| CA | 17.66 | | 2.05 | | 1.55 | | 0.99 | | 1.01 | |
| WA | 10.93 | | 1.15 | | 1.03 | | 0.85 | | 0.87 | |
| TX | 7.69 | | 0.91 | | 0.97 | | 0.49 | | 0.68 | |
| Ratio of HM 3.0 to HM 2.2.2, Average | | | | | | | | | | |
| CA | 16.02 | | 1.86 | | 2.23 | | 0.90 | | 0.91 | |
| WA | 11.06 | | 1.16 | | 1.72 | | 0.86 | | 0.88 | |
| TX | 7.79 | | 0.92 | | 2.10 | | 0.50 | | 0.69 | |

of CBGs

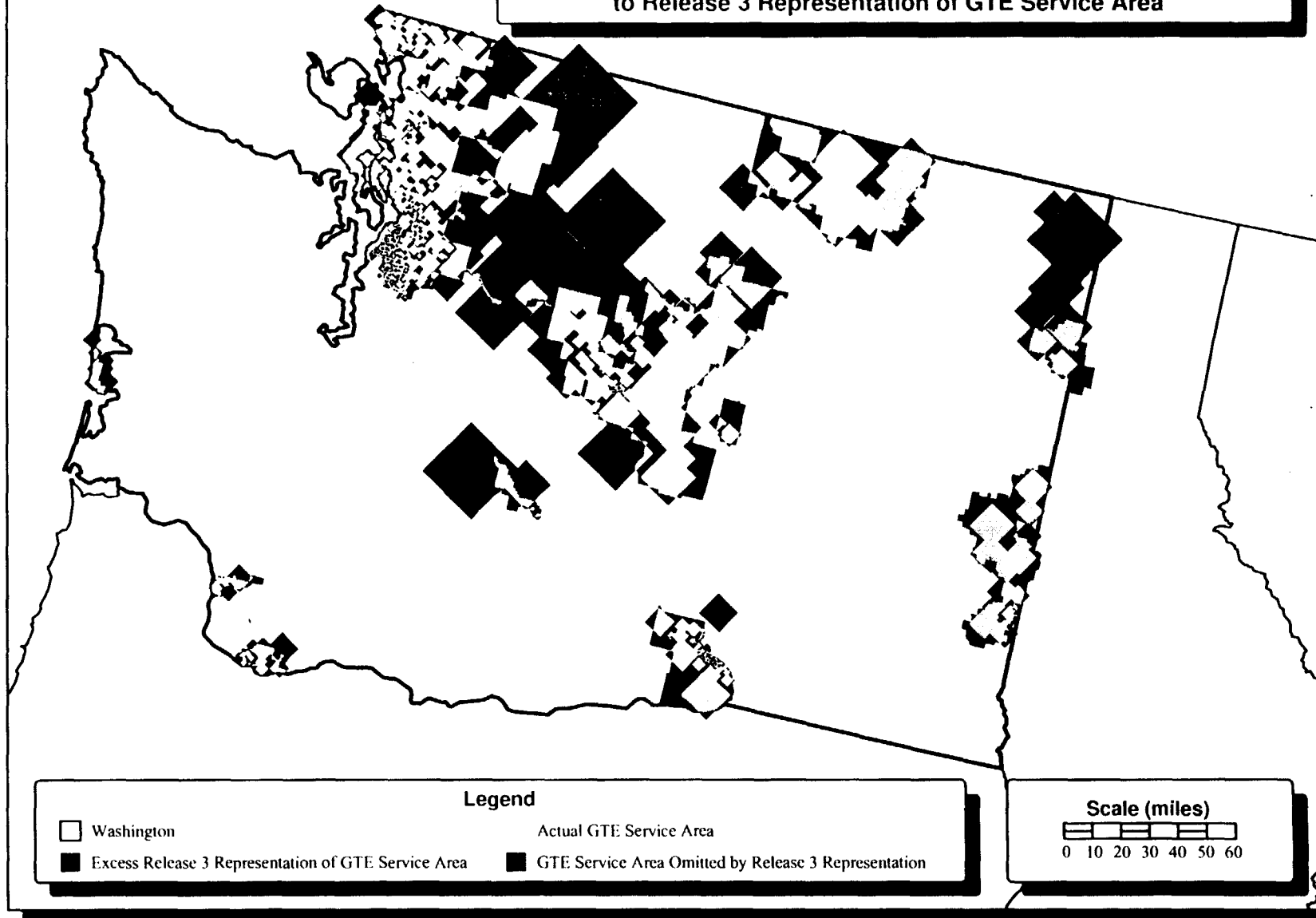
| | | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CA | 4,619 | 4,191 | 4,619 | 4,191 | 4,619 | 4,191 | 4,619 | 4,191 | 4,619 | 4,191 |
| WA | 1,026 | 1,039 | 1,026 | 1,039 | 1,026 | 1,039 | 1,026 | 1,039 | 1,026 | 1,039 |
| TX | 2,923 | 2,959 | 2,923 | 2,959 | 2,923 | 2,959 | 2,923 | 2,959 | 2,923 | 2,959 |

HM 3.0 CBG areas are larger than those provided by Claritas in 2,589 instances, and smaller in 2,029. However, among the "larger" HM 3.0 CBGs, the average difference is .70 miles, whereas among the "smaller" HM 3.0 CBGs, the average difference is .02 miles. Thus, while HM 3.0 areas are smaller than Claritas areas around 80% as often as they are larger, the average difference is 35 times greater in the former cases than in the latter.

HM 2.2.2 CBG areas are larger than those provided by Claritas in 3,202 instances, and smaller in 987. However, among the "larger" HM 2.2.2 CBGs, the average difference is 2.70 miles, whereas among the "smaller" HM 2.2.2 CBGs, the average difference is .003 miles. Thus, while HM 2.2.2 areas are smaller than Claritas areas around a third as often as they are larger, the average difference is 900 times greater in the former cases than in the latter.

APPENDIX H

Comparison of Actual GTE Service Area in Washington to Release 3 Representation of GTE Service Area



Appendix I

The input changes are:

| <u>Switch real-time limit, BHCA</u> | <u>Default</u> | <u>20% Decrease</u> | <u>50% Decrease</u> | <u>90% Decrease</u> |
|-------------------------------------|----------------|---------------------|---------------------|---------------------|
| 1-1,000 | 10,000 | 8,000 | 5,000 | 1,000 |
| 1,000-10,000 | 50,000 | 40,000 | 25,000 | 5,000 |
| 10,000-40,000 | 20,000 | 160,000 | 100,000 | 20,000 |
| 40,000 + | 600,000 | 480,000 | 300,000 | 60,000 |

The Results are :

Results for all scenarios except 90% decrease are:

| | <u>Annual Cost</u> | <u>Units</u> | <u>Unit Cost</u> |
|----------------------|--------------------|--------------------|-----------------------|
| End Office Switching | \$22,574,200 | | |
| Port | \$6,772,260 | 726,227 Lines | 0.78 per line / month |
| Usage | 15,801,940 | 9,552,246,145 min. | \$0.0017 per min. |

| | |
|-------------------------|--------------|
| EO Switching Investment | <u>Total</u> |
| end office switching | \$61,556,956 |

Results for the 90% decrease scenario are:

Results for all scenarios except 90% decrease are:

| | <u>Annual Cost</u> | <u>Units</u> | <u>Unit Cost</u> |
|----------------------|--------------------|--------------------|-----------------------|
| End Office Switching | \$29,413,351 | | |
| Port | \$8,824,005 | 726,227 Lines | 1.01 per line / month |
| Usage | 20,589,346 | 9,552,246,145 min. | \$0.0022 per min. |

| | |
|-------------------------|--------------|
| EO Switching Investment | <u>Total</u> |
| end office switching | \$70,753,969 |

When real time BHCA are reduced by 90% the model yields only a marginal increase in switching costs.

Percent Change from default results for the 90% decrease scenario are:

| | <u>Annual Cost</u> | <u>Units</u> | <u>Unit Cost</u> |
|-------------------------|--------------------|--------------------|------------------------|
| End Office Switching | 30.3% | | |
| Port | 30.3% | 726,227 Lines | 29.5% per line / month |
| Usage | 30.3% | 9,552,246,145 min. | 29.4% per min. |
| EO Switching Investment | <u>Total</u> | | |
| end office switching | | | |

ATTACHMENT C

| | (2) POLES OWNED BY GTE AND JOINTLY USED | (3) POLES PARTIALLY OWNED BY GTE | (4) POLES OWNED BY POWER COMPANY AND JOINTLY USED | (8) PERCENTAGE OF JOINTLY USED POLES SOLELY OR PARTIALLY OWNED BY GTE | (9) PERCENTAGE OF JOINTLY USED POLES OWNED BY POWER UTILITY |
|-----------------|---|--|--|---|--|
| ALL GTE REGIONS | 467,188 | 578,376 | 3,032,640 | 25.6379% | 74.3621% |

To calculate the fraction of jointly used poles owned wholly or partly by GTE (the result is expressed as a percentage)

$$\frac{(\text{Col. 2} + \text{Col. 3})}{(\text{Col. 2} + \text{Col. 3} + \text{Col. 4})}$$

To calculate the fraction of jointly used poles owned by the power utility:

$$100\% - (\text{Column 8})$$

ATTACHMENT D

Comparison of Asset Lives Used for Depreciation Purposes

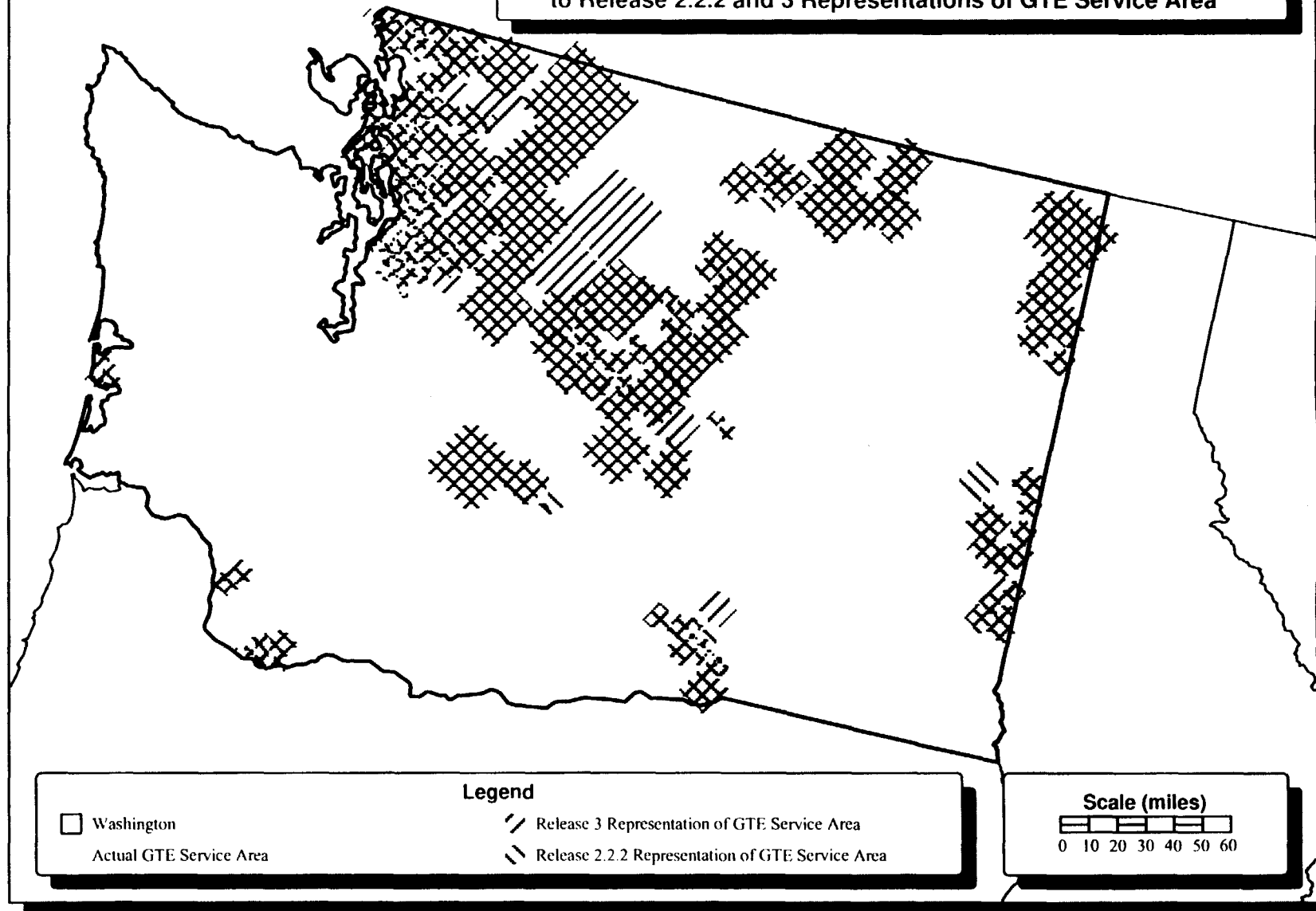
| | BCPM | Hatfield 3 | GTE | TFI |
|----------------------|-------|------------|----------------|---------------------|
| Depreciation Classes | Lives | Lives | Economic Lives | Economic Life Range |
| Land | 00.00 | 00.00 | 0 | |
| Motor Vehicle | 06.19 | 09.16 | 8 | |
| S P Vehicle | 10.04 | | 8 | |
| Garage Work | 12.10 | 11.47 | 10 | |
| Other Work | 13.81 | 13.22 | 10 | |
| Building | 42.61 | 48.99 | 30 | |
| Furniture | 16.09 | 16.56 | 10 | |
| Office Support | 11.08 | 11.25 | 10 | |
| G P Computers | 05.39 | 06.24 | 5 | |
| Switching | 09.80 | 16.54 | 10 | 9 - 11 |
| Circuit/DLC | 08.46 | 10.09 | 8 | 6 - 9 |
| Pole | 30.05 | 16.13 | 25 | |
| Aerial Copper | 12.49 | 16.80 | 15 | 14 - 16 |
| Aerial Fiber | 18.92 | 22.11 | 20 | 15 - 20 |
| Underground Copper | 11.37 | 21.17 | 15 | 14 - 16 |
| Underground Fiber | 18.94 | 22.87 | 20 | 15 - 20 |
| Buried Copper | 14.10 | 19.86 | 15 | 14 - 16 |
| Buried Fiber | 18.94 | 24.13 | 20 | 15 - 20 |
| Conduit | 50.00 | 51.35 | 40 | |

ATTACHMENT E

| USOA Account | Common Costs Categories |
|--------------|--------------------------------------|
| | I. CORPORATE OPERATIONS COSTS |
| 671X | Executive and Planning |
| 6711 | Executive |
| 6712 | Planning |
| 672X | General and Administrative |
| 6721 | Accounting and Finance |
| 6722 | External Relations |
| 6723 | Human Resources |
| 6724 | Information Management |
| 6725 | Legal |
| 6726 | Procurement |
| 6727 | Research and Development |
| 6728 | Other G & A |
| | II. OTHER COMMON COSTS |
| | General Support Costs |
| 21XX | |
| 2112 | Motor Vehicle |
| 2114 | Special Purpose Vehicle |
| 2115 | Garage Work Equipment |
| 2116 | Other Work Equipment |
| 2121 | Building + Land |
| 2122 | Furniture |
| 2123 | Office Support Equipment |
| 2123 | Company Communications Equipment |
| 2124 | General Purpose Computers |
| | Plant Specific Operations |
| 611X | Network Support Expenses |
| 6112 | Motor Vehicle Expense |
| 6115 | Garage Work Equipment Expense |
| 6116 | Other Work Equipment |
| 612X | General Support Expenses |
| 6122 | Furniture |
| 6123 | Office Equipment |
| 6124 | General Purpose Computers |
| | Plant Non-Specific Operations |
| 6512 | Provisioning Expense |
| 653X | Network Operations Expenses |
| 6532 | Network Administration |
| 6533 | Testing |
| 6534 | Plant Operations Administration |
| 6535 | Engineering |

ATTACHMENT F

Comparison of Actual GTE Service Area in Washington
to Release 2.2.2 and 3 Representations of GTE Service Area



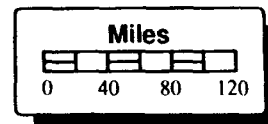
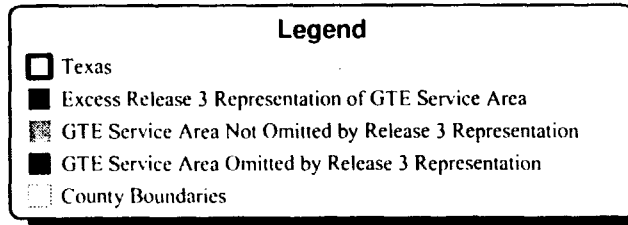
**Comparison of Actual GTE Service Area in Texas
to Release 3 and 2.2.2 Representations of GTE Service Area**

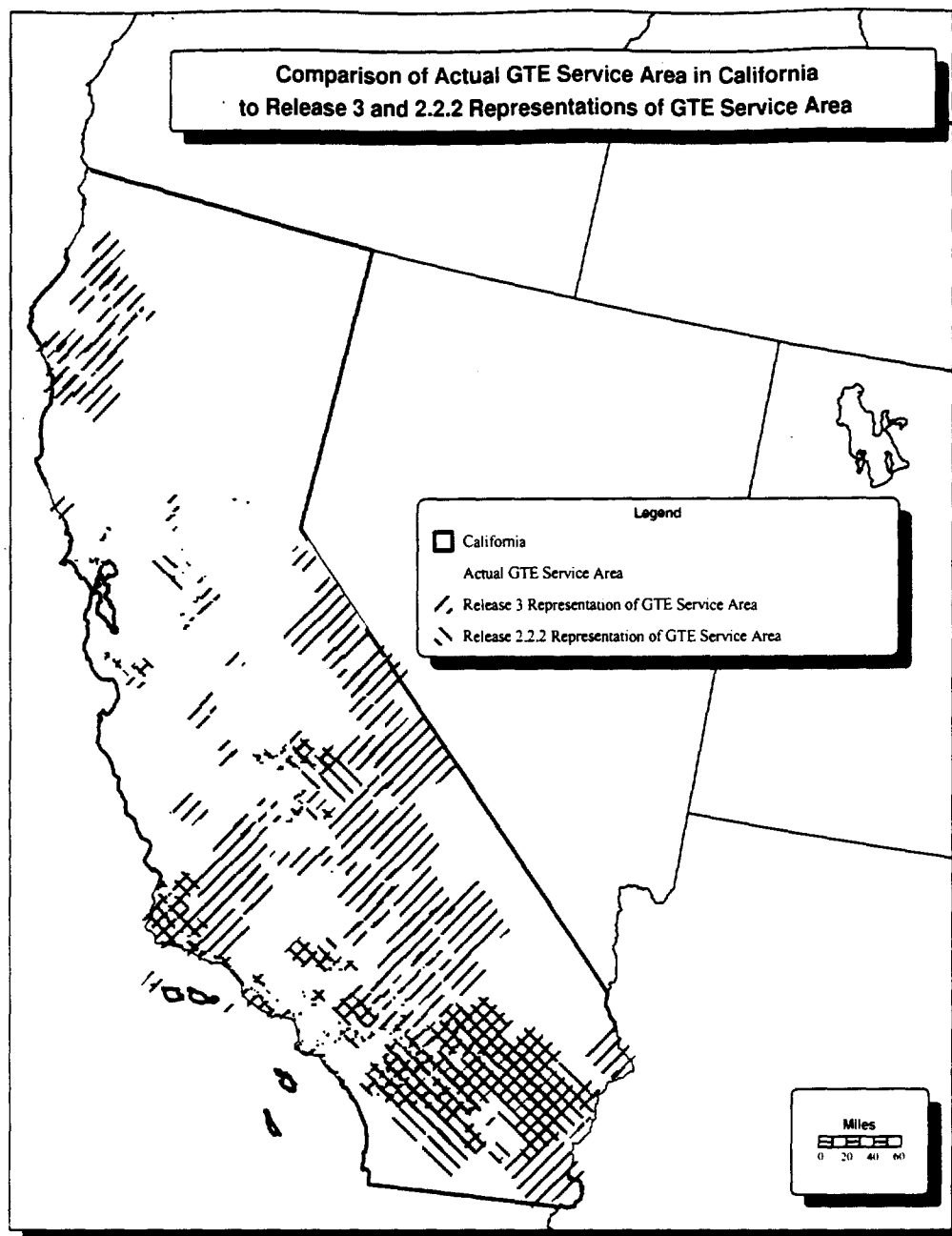
- Legend**
- Texas
 - Actual GTE Service Area
 - Release 3 Representation of GTE Service Area
 - Release 2.2.2 Representation of GTE Service Area
 - County Boundaries

Miles

0 40 80 120

Comparison of Actual GTE Service Area in Texas
to Release 3 Representation of GTE Service Area





Proprietary and Confidential
Prepared at the Request of Counsel

Preliminary Draft:
Not Data Managed

Certificate of Service

I, Ann D. Berkowitz, hereby certify that copies of the foregoing "GTE's Comments" have been mailed by first class United States mail, postage prepaid, on February 18, 1997 to all parties of record.

David Konuch*
Federal Communications Commission
1919 M Street, NW
Room 518
Washington, DC 20554

Richard Juhnke
Sprint Corporation
1850 M Street, NW
Suite 1100
Washington, DC 20036

Robert B. McKenna
U S West, Inc.
1020 19th Street, NW
Suite 700
Washington, DC 20036

James L. Wurtz
Pacific Telesis Group
1275 Pennsylvania Avenue, NW
Washington, DC 20004


Ann D. Berkowitz

*Hand Delivery

APPENDIX B

**Comparison of Hatfield Model Release 3 and 2.2.2 Distribution Distances
with Sums of Street Segment Lengths in Sample California CBGs**

CBG 60650438.063

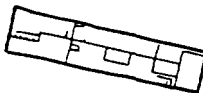
Distribution Distance

Release 3: 25.2 miles

Release 2.2.2: 3.0 miles

Sum of Street Segment Lengths

74.4 miles



CBG 60650443.002

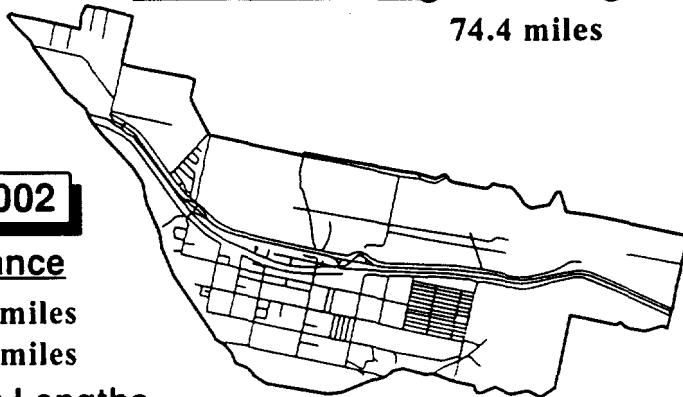
Distribution Distance

Release 3: 12.5 miles

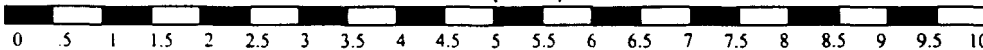
Release 2.2.2: 0.8 miles

Sum of Street Segment Lengths

7.6 miles



Scale (miles)



Appendix C

Analysis of Hatfield CBG data

| State | Hatfield Household Counts | Hatfield Average CBG distance | BCPM/ 1995 Census Household Counts | BCPM Average CBG Distances | %Difference from Hatfield to 1995 Census Households | Actual Second Line Penetration | %Difference From Hatfield to BCPM CBG Distances |
|-------|---------------------------|-------------------------------|------------------------------------|----------------------------|---|--------------------------------|---|
| CA | 15,495,577 | 8,897 | 11,033,168 | 9,302 | 40.4% | 17.1% | -4.4% |
| CO | 1,838,438 | 11,819 | 1,457,461 | 12,423 | 26.1% | 14.7% | -4.9% |
| NJ | 2,880,608 | 8,505 | 2,872,354 | 8,597 | 0.3% | 32.1% | -1.1% |
| OH | 5,056,088 | 9,475 | 4,198,488 | 9,683 | 20.4% | 7.1% | -2.2% |
| TX | 6,658,049 | 12,049 | 6,684,245 | 12,357 | -0.4% | 8.8% | -2.5% |
| WA | 2,278,001 | 11,439 | 2,089,800 | 12,027 | 9.0% | 9.7% | -4.9% |

Note:

- CBG distances are based upon weighted average of distance from CO to Centroid of CBG.
The weighting factor used was Households
- The Second Line penetration was based upon 1995 Armis reported Residential lines divided by the 1995 Census Household counts.

Appendix D

Comparison of Hatfield TSLRIC Results

GTE of California, Inc.

| Loop elements | GTE Base Case | Costs with All Input Prices Increased 10% | Percent Change | Percent of Total Cost of Network Elements (Base) |
|--|------------------|---|-------------------|--|
| (1) | (2) | (3) | (4) | (5) |
| NID | \$0.72 | \$0.79 | 9.39% | 4.34% |
| Loop Distribution (all) | \$5.94 | \$6.51 | 9.45% | 35.83% |
| Loop Concentration (all) | \$2.77 | \$3.01 | 8.65% | 16.71% |
| Loop Feeder (all) | \$3.21 | \$3.51 | 9.50% | 19.33% |
| Total Loop (all) | \$12.64 | \$13.82 | 9.29% | 76.20% |
| Total (w/ Public) | \$887,151,410.29 | \$956,904,158.92 | 7.86% | |
| Total cost of switched network elements | \$16.59 | \$17.87 | 7.73% | 100.00% |

Appendix E

Actual Versus Hatfield Comparison CONTEL/GTE of California, Inc. (\$ million)

| Cost Category | Actual | Model | Model/Actual |
|----------------------------|---------|---------|----------------|
| (1) | (2) | (3) | (4) (3)/(2) |
| Network Investment | 7,699.8 | 3,254.5 | 42.3% |
| General Support Investment | 1,158.1 | 177.0 | 15.3% |
| Total Investment | 8,921.1 | 3,431.5 | 38.5% |
| Network Expenses | 272.1 | 104.6 | 38.4% |
| Support Expenses | 404.2 | 144.2 | 35.7% |
| Corporate Expenses | 396.5 | 85.1 | 21.5% |
| Total Expenses | 1,072.8 | 333.8 | 31.1% |
| Revenue | 2,411.3 | 887.2 | 36.8% |

Actual Versus Hatfield Comparison GTE Telephone Operations, Texas (\$ million)

| Cost Category | Actual | Model | Model/Actual |
|----------------------------|---------|---------|----------------|
| (1) | (2) | (3) | (4) (3)/(2) |
| Network Investment | 3,399.2 | 2,220.4 | 65.3% |
| General Support Investment | 561.7 | 131.5 | 23.4% |
| Total Investment | 3,976.3 | 2,351.9 | 59.1% |
| Network Expenses | 119.3 | 58.6 | 49.1% |
| Support Expenses | 171.1 | 72.2 | 42.2% |
| Corporate Expenses | 159.1 | 53.4 | 33.6% |
| Total Expenses | 449.6 | 184.2 | 41.0% |
| Revenue | 1,024.6 | 561.3 | 54.8% |

Appendix F

HM 3.0 and HM 2.2.2 Distribution Distances and Street Lengths within Selected California CBGs Contained Entirely within GTE Wire Centers (miles)

| CBG | HM 3.0 Distance | HM 3.0 Cable Sums | HM 2.2.2 Distance | Length of Streets | Claritas Areas |
|-----------------|--------------------|----------------------|----------------------|----------------------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 60650444.027 | 17.05 | 32.04 | 3.97 | 36.24 | 20.20 |
| 60650438.064 | 19.94 | 45.45 | 3.71 | 54.86 | 17.65 |
| 60650438.061 | 13.27 | 27.23 | 3.16 | 15.20 | 12.79 |
| 60650438.063 | 25.21 | 84.53 | 2.97 | 74.41 | 11.27 |
| 60710109.007 | 20.30 | 31.53 | 0.96 | 34.38 | 2.35 |
| 60710110.002 | 11.54 | 16.52 | 0.95 | 24.95 | 2.29 |
| 60710110.001 | 16.70 | 26.74 | 0.89 | 34.73 | 2.04 |
| 60830017.023 | 28.47 | 92.86 | 0.86 | 12.87 | 1.88 |
| 60710109.001 | 16.58 | 26.95 | 0.83 | 31.77 | 1.76 |
| 60710109.006 | 17.03 | 26.76 | 0.78 | 25.68 | 1.55 |
| 60650443.001 | 13.14 | 26.61 | 0.96 | 11.69 | 1.19 |
| 60830017.012 | 13.62 | 42.09 | 0.68 | 10.99 | 1.17 |
| 60650442.001 | 17.80 | 31.76 | 0.87 | 12.60 | 0.97 |
| 60650443.002 | 12.54 | 29.37 | 0.82 | 7.55 | 0.87 |
| 60830016.013 | 15.53 | 28.03 | 0.55 | 9.03 | 0.77 |
| 60650442.002 | 11.80 | 22.32 | 0.70 | 11.90 | 0.63 |
| 60650441.003 | 12.59 | 22.71 | 0.63 | 7.83 | 0.51 |
| 60830017.021 | 5.21 | 16.69 | 0.43 | 6.07 | 0.48 |
| 60650441.005 | 10.87 | 20.35 | 0.61 | 9.95 | 0.48 |
| 60830016.011 | 6.99 | 10.81 | 0.42 | 4.53 | 0.46 |
| 60830016.012 | 11.13 | 25.26 | 0.42 | 6.66 | 0.45 |
| 60830016.026 | 7.60 | 30.86 | 0.35 | 2.80 | 0.32 |
| 60650438.069 | 2.83 | 3.53 | 0.38 | 3.21 | 0.18 |
| 60830016.022 | 4.19 | 10.13 | 0.25 | 3.03 | 0.16 |
| 60830016.023 | 4.19 | 6.45 | 0.25 | 2.73 | 0.16 |
| 60650441.004 | 3.38 | 8.63 | 0.35 | 3.77 | 0.16 |
| 60830016.027 | 4.02 | 9.70 | 0.24 | 3.70 | 0.15 |
| 60830016.025 | 4.59 | 11.47 | 0.22 | 3.53 | 0.12 |
| 60830016.021 | 3.05 | 7.56 | 0.21 | 2.91 | 0.11 |
| Total, 29 CBGs | 351.17 | 774.92 | 28.43 | 469.58 | 83.11 |
| Total, All CBGs | 52,190.71 | 129,294.60 | 2,955.34 | | |

| | |
|--|------|
| Ratio of Street Lengths to HM 2.2.2 Distance, Selected CBGs | 16.5 |
| Ratio of Street Lengths to HM 3.0 Distance, Selected CBGs | 1.3 |
| Ratio of HM 3.0 Distance to HM 2.2.2 Distance, Selected CBGs | 12.4 |
| Ratio of HM 3.0 Distance to HM 2.2.2 Distance, All CBGs | 17.7 |
| Ratio of HM 3.0 Cable Sums to HM 2.2.2 Distance, Selected CBGs | 27.3 |
| | 43.7 |

Appendix G

Comparison of HM 3.0 and HM 2.2.2 Distribution Distance, Area, Density, and Distribution Cost and Investment for GTE California, GTE Texas and GTE Washington

| State | Distance (miles) | | Area (sq. miles) | | Households (000) | | Loop Distribution Annual Cost (\$mm) | | Total Distribution Investment (\$mm) | |
|--------------------------------------|------------------|----------|------------------|-----------|------------------|----------|---|----------|---|------------|
| | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 | HM 3.0 | HM 2.2.2 |
| Total | | | | | | | | | | |
| CA | 52,190.71 | 2,955.34 | 55,461.67 | 27,036.29 | 3,657.69 | 2,358.98 | \$307.51 | \$309.95 | \$1,166.10 | \$1,158.01 |
| WA | 15,054.60 | 1,377.90 | 18,562.39 | 16,161.36 | 519.68 | 503.74 | \$68.94 | \$81.50 | \$274.29 | \$316.18 |
| TX | 45,648.28 | 5,934.53 | 89,336.71 | 97,943.76 | 1,153.99 | 1,191.52 | \$131.44 | \$267.54 | \$699.49 | \$1,025.25 |
| Average | | | | | | | | | | |
| CA | 11.30 | 0.71 | 12.01 | 6.45 | 4,307.05 | 1,931.01 | 0.0666 | 0.0740 | 0.2525 | 0.2763 |
| WA | 14.67 | 1.33 | 18.09 | 15.55 | 1,578.40 | 915.17 | 0.0672 | 0.0784 | 0.2673 | 0.3043 |
| TX | 15.62 | 2.01 | 30.56 | 33.10 | 1,588.15 | 757.58 | 0.0450 | 0.0904 | 0.2393 | 0.3465 |
| Ratio of HM 3.0 to HM 2.2.2, Total | | | | | | | | | | |
| CA | 17.66 | | 2.05 | | 1.55 | | 0.99 | | 1.01 | |
| WA | 10.93 | | 1.15 | | 1.03 | | 0.85 | | 0.87 | |
| TX | 7.69 | | 0.91 | | 0.97 | | 0.49 | | 0.68 | |
| Ratio of HM 3.0 to HM 2.2.2, Average | | | | | | | | | | |
| CA | 16.02 | | 1.86 | | 2.23 | | 0.90 | | 0.91 | |
| WA | 11.06 | | 1.16 | | 1.72 | | 0.86 | | 0.88 | |
| TX | 7.79 | | 0.92 | | 2.10 | | 0.50 | | 0.69 | |

of CBGs

| | | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CA | 4,619 | 4,191 | 4,619 | 4,191 | 4,619 | 4,191 | 4,619 | 4,191 | 4,619 | 4,191 |
| WA | 1,026 | 1,039 | 1,026 | 1,039 | 1,026 | 1,039 | 1,026 | 1,039 | 1,026 | 1,039 |
| TX | 2,923 | 2,959 | 2,923 | 2,959 | 2,923 | 2,959 | 2,923 | 2,959 | 2,923 | 2,959 |

HM 3.0 CBG areas are larger than those provided by Claritas in 2,589 instances, and smaller in 2,029. However, among the "larger" HM 3.0 CBGs, the average difference is .70 miles, whereas among the "smaller" HM 3.0 CBGs, the average difference is .02 miles. Thus, while HM 3.0 areas are smaller than Claritas areas around 80% as often as they are larger, the average difference is 35 times greater in the former cases than in the latter.

HM 2.2.2 CBG areas are larger than those provided by Claritas in 3,202 instances, and smaller in 987. However, among the "larger" HM 2.2.2 CBGs, the average difference is 2.70 miles, whereas among the "smaller" HM 2.2.2 CBGs, the average difference is .003 miles. Thus, while HM 2.2.2 areas are smaller than Claritas areas around a third as often as they are larger, the average difference is 900 times greater in the former cases than in the latter.